The Organization Structure of the Expeditionary Fire Support System

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INTRO

In December 2007, The Honorable Carl Levin of the United States Senate commented that:

> "The United States Marine Corps and the Special Operations Command determined in 1999 that there was a need for a weapon system that could be carried inside the V-22 Osprey and deployed to support assault operations. The Expeditionary Fire Support System (EFSS), which consists of a vehicle that tows a 120 mm mortar and another vehicle that tows an ammunition trailer, is one of the systems now being developed to meet this need."[1]

Much debate has existed over the design, employment, and parent organization responsible for the EFSS. The fielding of the system to the Marine artillery community is only months away. It is important to transition from being skeptical to focusing on how to proficiently employ the EFSS in a way that will positively enhance the Marine Corps' ability to provide fire support to the maneuver forces in the fight.

The upcoming addition of the 120 mm mortar will allow today's artillerymen to provide fire support tailored to a wide array of mission requirements. The triad of fire support is now a reality among the artillery community that includes the EFSS, the M777A2 Lightweight Howitzer, and the High Mobility Artillery Rocket Launcher System (HIMARS).

Skeptics of the EFSS will argue that the timing could not be worse for another new system for artillerymen to adapt to.

Because of the multitude of missions artillerymen are currently executing, completely separate from the traditional role of pulling lanyards, it is a concern to many that a new system will be just another tool in the toolbox that the Marines will not have the opportunity to knock around. Regardless, the EFSS is in the artilleryman's toolbox now. Unless a standard organizational structure is established for the EFSS, the Marine artillery community will struggle with proficiently employing the system.

The evolution of Marine artillery

The addition of a new caliber weapon system into the Marine artillery community is not a new concept. "During the 1980's the United States Marine Corps went from an artillery force consisting of 5 different artillery systems capable of performing a multitude of roles and missions to a single system, the M198 155mm howitzer."[2] This howitzer was the primary weapon system for Marine artillery for over two decades; Marine artillerymen were extremely familiar with and well trained on this howitzer.

For the executors-- the forward observers (FO's) calling for fire, the Fire Direction Center (FDC) Marines computing technical data, and the Marines on the gun line pulling lanyards-- having only one source of ground-based fire support to master was a relatively positive thing.

At the strategic level of planning, and well outside the line of sight for an artillery battalion or battery, a significant concern existed with the capabilities and flexibility of Marine artillery. In the words of the 32nd Commandant, “We got rid of a lot of our artillery weapons in the name of efficiency, in the name of mobility, and we hinged ourselves to one field artillery system, the M198 towed 155-mm howitzer. The M198 is a wonderful artillery piece, but it’s not very mobile... We have atrophied our Marine ground fires inventory to a dangerous point. We’re out-gunned and out-ranged by just about everyone. So I am fixing the artillery [and] bringing robustness back to the Marine artillery.”[3]

National Military Strategy, Joint Vision 2020, and the Marine Corps in particular recognized the need for a transition or transformation across the military spectrum. Emerging expeditionary platforms at the time such as the Landing Craft Air Cushion (LCAC), the MV-22 Osprey tilt rotor aircraft, and the Advanced Amphibious Assault Vehicle (AAAV) re-focused the Marine Corps on the importance and necessity to conduct amphibious operations as a Ship-To-Objective-Maneuver (STOM) force.

A preliminary measure taken to emerge a more expeditionary platform was to introduce the M777 Lightweight Howitzer. A significant requirement for production of this howitzer was the ability to be transported by the MV-22 Osprey. The M777 would not rely on surface shipping to get to shore and keep up with Marines advancing inland from the amphibious objective area.

The Marine Corps' concern with the lack of adequate expeditionary fire support has also re-surfaced long-range or deep fight artillery fires. "The Marines abandoned rocket artillery in the 1970s" writes Lockheed Martin "in favor of what it then felt to be more deployable fire support solutions."[4] Two HIMARS battalions now exist: 5/11 in Camp Pendleton, California and 2/14 (reserve) in Oklahoma City, Oklahoma.

Many arguments stem from the amphibious or expeditionary nature of HIMARS, but the fact is the system is an enormous asset with incredible capabilities that the Marine Air Ground Task Force (MAGTF) commander can utilize across the MAGTF spectrum. The shift to an expeditionary focus is underway and active.

The Marine Corps went from a 16,000 pound howitzer to a 9,000 pound howitzer with more capability than its predecesor. It also re-introduced the capability to provide long range, accurate indirect fire to 70,000 meters with HIMARS. Most

recently the Marine Corps has introduced the EFSS to the artillery community as the third and (at least temporarily) final leg of the ‘triad’ of fire support.

The infantry and artillery community argued that the structure and mission necessary to employ the 120mm mortar was already resident in the infantry battalion. An article in the 2007 issue of The Marine Corps Gazette documented that adding a third fire support system to the artillery community would “tax an already structure-strained military occupational specialty (MOS).”[5] Some call it a win and some call it a loss, but the bottom line is that the EFSS will soon be in the artillery community’s inventory, and the ‘triad’ is a solution to creating the balance between conventional and unconventional warfare for the expeditionary nature of the Marine Corps.

Capabilities of the EFSS

The mission of the EFSS is to serve as the direct support weapon system for the vertical assault element of the STOM force. One launcher, its prime mover, a portion of the ammunition basic load, and the crew are internally transportable with either the MV-22 or the CH-53 for a 110 nautical mile lift. The system in its completeness also includes another prime mover with ammunition trailor; capable of carrying either 30

horizontally transported high explosive/illumination (HE/Illum) rounds or 20 vertically transported white phosphorus (WP) rounds. In order to transport the complete system (one launcher, two prime movers, an ammunition trailor, and crew), two MV-22's or two Ch-53's (or a combination of the two) will be necessary.

The system can be emplaced and fire capable in approximately 3-minutes. It has the ability to fire up to 4-rounds per minute at ranges between 1200 and 8000 meters. In comparison to its 81mm mortar counterpart, the extra 2300 meters proves invaluable to the commander and Marines who are in need of accurate and responsive fire support.

The EFSS is not a replacement, just another Global War on Terrorism (GWOT) funded weapon system, or the artillery community's new center of gravity. The system fills an ever apparent gap between the Marines who conduct ship-to-shore or air-to-ground operations and the fire support community that often cannot make it onto wave one or wave two of the Helicoptor Wave Serial Assignment Table (HWSAT).

Compare the 120mm EFSS to the Army's version of the 105mm lightweight howitzer. Maximum range, time of flight, and overall reputation of the 105mm lightweight howitzer are all commendable, but the Marine Corps did not need a smaller version of its current M777A2 155mm howitzer. It needed a mortar system

that would provide increased speed, tactical agility, and vertical transportability to ranges that mirror that of a vertical force.

Organizational Structure of the EFSS

The current plan is to field the EFSS as a battery consisting of six complete EFSS systems and five battery support vehicles. These numbers total six mortars, six ammunition trailors, and seventeen various vehicles (twelve to pull the mortars and ammunition trailors and five as the battery support vehicles).

10th Marine Regiment will see its first battery in early 2009 and its second and third batteries during fiscal year 2010. This likely means that one battery will be fielded to each of the artillery battalions. Artillery battalions are currently organized into three firing batteries and one headquarters battery. To add an additional independent mortar battery, completely separated from the already existing howitzer batteries would hinder the intent and functionality of the EFSS.

The Marines inherent to the already existing howitzer batteries are well-trained and capable of employing the EFSS in a relatively short matter of time with the proper amount of

training. The fire direction computations and gunnery solutions are very similar to the M777A2 howitzer.

The primary mission of the EFSS is to serve as the direct support weapon system for the vertical assault element of the STOM force. The system would best be employed in pairs, and not as a six-tube battery. The EFSS is not designed to be a sustaining fire support asset. It is designed to get in the fight from a vertical assault support aircraft, deliver a limited amount of 120mm mortar support, and ultimately sustain the force until further and heavier indirect fire support becomes available.

The fire direction center inherent to the howitzer battery has the capabilities to employ both the M777A2 and the EFSS. The Marines inherent to guns platoon (the lanyard pullers) would be dual hatted and capable of employing both systems. Most importantly, the commander would have the latitude and expertise to advise his supported unit commander (likely a battalion or even a MEU commander) on the proper apportionment of fire support assets.

Conclusion

The Marine Corps is an adaptive organization that is quick to recognize and adopt weapon systems tailored to the needs of the current operating environment. The artillery community is

fortunate to have the opportunity to employ a system that is both expeditionary in nature and tailored to today's modernized battlefield. Like most new concepts and systems, the EFSS is highly scrutinized and criticized, but it is a system with benefactors. The users of this new system must take the bull by horns and accept that it is in our inventory now and the competent employment of the system is essential.

The employment of a mortar platoon or section inherent to the firing battery would allow all artillerymen to be familiar and competent with the system. Two complete systems could quickly get in the fight with either four internally transported MV-22's or four CH-53's and could do so with the same Marines who would later be providing the more sustained fire support from the M777A2 Lightweight Howitzer.

ENDNOTES

[1] The Honorable Carl Levin, “Defense Acquisitions, Status of the Expeditionary Fire Support System,” U.S. Government Accountability Office, (2007): 1-13.

[2] Maj Alan Orr, “Marine Artillery for the Future: One Size Doesn’t Fit All,” CSC 2007.

[3] Maj Alan Orr, “Marine Artillery for the Future: One Size Doesn’t Fit All,” CSC AY 2007.

[4] Defense Daily, *Lockheed Martin Receives HIMARS Training Contract from Marine Corps*, October 10, 2001.

[5] Capt R.C. Mitchell, “Employment of the EFSS,” Marine Corps Gazette 91, no. 12 (2007): 29-31.

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Naylor, Sean. *Not a good day to die, the untold story of Operation Anaconda*. (2005).